

ERGONOMIC AUXILIARY SCREEN AND DISPLAY SUBSYSTEM FOR PORTABLE HANDHELD DEVICES

ABSTRACT

A portable hand-held device having a main display is provided with an auxiliary

5 display that effectively doubles the useful viewing area. An auxiliary display video
memory is allocated in memory and managed by a microprocessor within the device.
The auxiliary display is either pivotally or slidingly mounted to a body portion of the
device, preferably adjacent an outside edge of the main display to provide concurrent
dual-display viewing and optional contiguity of displayed subject matter. A video
10 memory management mechanism for managing the dual-display video memory in
memory and for enabling pixel data to one or both of the displays may be hardware-
assisted, as by use of a high-speed video replay and/or rendering hardware mechanism.
When not deployed for viewing, the auxiliary display folds or slides within the general
15 confines of the body of the hand-held portable device, which may be a personal digital
assistant (PDA), pocket personal computer (PC) or personal digital assistant (PDA).